(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 12 May 2005 (12.05.2005)

PCT

(10) International Publication Number WO 2005/043580 A1

- (51) International Patent Classification⁷: H01J 37/32, 37/317, 37/09, 37/20, 37/30, C23C 14/48, 14/50, 14/20, C08J 3/28, A61M 1/10, 1/12
- (21) International Application Number:

PCT/AU2004/001489

- (22) International Filing Date: 28 October 2004 (28.10.2004)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 2003906051

31 October 2003 (31.10.2003) AU

- (71) Applicants (for all designated States except US): VEN-TRACOR LIMITED [AU/AU]; 126 Greville Street, Chatswood, NSW 2067 (AU). THE UNIVERSITY OF SYDNEY [AU/AU]; Sydney, NSW 2006 (AU).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): McKENZIE, David, Robert [AU/AU]; 23 Tindale Road, Artarmon, NSW 2064 (AU). POWLES, Rebecca [AU/AU]; 65 O'Connor Street, Chippendale, NSW 2008 (AU).

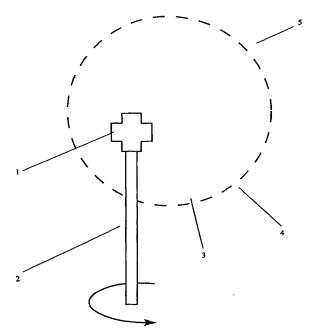
- (74) Agent: HODGKINSON McINNES PAPPAS; Level 3, 20 Alfred Street, Milsons Point, NSW 2061 (AU).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

[Continued on next page]

(54) Title: PLASMA IMMERSION ION IMPLANTATION USING CONDUCTIVE MESH



(57) Abstract: A plasma processor (5) for modifying at least a region of a surface of a component (1); wherein the component (1) is bombarded by ions from a gas plasma environment (4); and the ions are drawn towards the component (1) by a voltage source applied to a first mesh (3). The first mesh (3) is a stationary non-conformal mesh (3), and the component (1) does not contact the first mesh (3). The component (1) is moved (2) in the vicinity of the first mesh (3) to evenly expose it to ion bombardment (4).

2005/043580 A1 III

WO 2005/043580 A1

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.